

a second buried impurity region of a second conductive type formed between said first buried impurity region and said semiconductor layer;

a first impurity region of the second conductive type which is formed in the surface of said semiconductor layer and which is electrically connected to said second buried impurity region;

a second impurity region of the first conductive type which is formed in the surface or inside of said semiconductor layer located in a region above said second buried impurity region; and

a semiconductor element which includes said first impurity region and said second impurity region and which has a switching function formed on the surface of said semiconductor layer,

wherein the withstanding voltage is secured by a depletion layer extending from an interface between said second buried impurity region and said semiconductor layer under the condition where said semiconductor element is turned OFF; and

said second buried impurity region includes a first gap part wherein said second buried impurity region is disconnected, said gap part of the second buried impurity region positioned directly beneath said second impurity region.

10. (Amended) A semiconductor device including:

a semiconductor substrate having a main surface;

a semiconductor layer of a first conductive type formed on the main surface of said semiconductor substrate;

a buried impurity region of the first conductive type formed between said semiconductor substrate and said semiconductor layer;

a first impurity region of the first conductive type which is formed on the surface of said semiconductor layer and which is electrically connected to said buried impurity region;

a second impurity region of a second conductive type formed on a surface of said semiconductor layer located in a region above said buried impurity region; and

a semiconductor element which includes said first impurity region and said second impurity region and which has a switching function formed on the surface of said semiconductor layer,

wherein a withstanding voltage is secured by a depletion layer extending from an interface between said second impurity region and said semiconductor layer under the condition where said semiconductor element is turned off; and

said buried impurity region includes a gap part wherein said buried region is disconnected, said gap part of the second buried impurity region positioned directly beneath said second impurity region.

REMARKS

At the time of the Office Action dated June 4, 2002, claims 1-13 were pending and rejected in this application. Claims 1 and 10 have been amended, and care has been exercised to avoid the introduction of new matter. Specifically, claims 1 and 10 have been amended to recite that a gap part is positioned directly beneath a second impurity region. Support for this limitation can be found throughout the originally filed disclosure, for example, on page 12, lines 20-23. Applicant submits that the present Amendment does not generate any new matter issue.